

IN THE CLAIMS:

1. (Currently Amended) An epitaxial silicon wafer including a silicon wafer substrate doped with nitrogen on which an epitaxial film formed, wherein ~~a hill-shaped defect is not observed on the epitaxial film~~ a range of nitrogen concentration and oxygen concentration falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is 3×10^{15} atoms/cm³ when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³.

2. (Currently Amended) An epitaxial silicon wafer including a silicon wafer substrate doped with nitrogen on which an epitaxial film formed, wherein the number of crystal defects observed as ~~LPDs~~ Light Point Defects of 120 nm or more on the epitaxial film is 20 pieces/200-mm wafer or less and wherein a range of nitrogen concentration and oxygen concentration falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is 3×10^{15} atoms/cm³ when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³.

3. (Currently Amended) A method of manufacturing a silicon single crystal ingot by Czochralski method, wherein silicon single crystal pulling is performed in a range of nitrogen concentration and oxygen concentration, which falls within an area in a graph in which the

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oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is 3×10^{15} atoms/cm³ when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which then nitrogen concentration is 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³ while nitrogen is being doped in a region where the number of crystal defects observed after epitaxial growth as ~~LPDs~~ Light Point Defects of 120 nm or more is 20 pieces/200-mm wafer or less.

4. (Currently Amended) A method of manufacturing a silicon single crystal ingot by Czochralski method, wherein silicon single crystal pulling is performed in a range of nitrogen concentration and oxygen concentration, which falls within an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which not exceeding a range wherein the nitrogen concentration is about 3×10^{15} atoms/cm³ when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is about 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³.

5. (Currently Amended) The method of manufacturing a silicon single crystal ingot by the Czochralski method according to claim 4, wherein the oxygen concentration is lowered corresponding to ~~an~~ and in accordance with increase in nitrogen concentration.

6. (Currently Amended) A nitrogen-doped silicon wafer, wherein a range of nitrogen concentration and oxygen concentration ~~are~~ falls within ~~a range~~ an area in a graph in which the

oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is about 3×10^{15} atoms/cm³ or less when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is about 3×10^{14} atoms/cm³ or less when the oxygen concentration is 1.6×10^{18} atoms/cm³.

7. (Currently Amended) A nitrogen-doped silicon wafer, wherein a range of nitrogen concentration and oxygen concentration are falls within a range an area in a graph in which the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis of the graph, respectively, on or below a straight line connecting a point at which the nitrogen concentration is about 1×10^{15} atoms/cm³ or less when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is about 1×10^{14} atoms/cm³ or less when the oxygen concentration is 1.5×10^{18} atoms/cm³.

8. (Cancelled)

9. (Cancelled)